

- Lloyd's Chapel Swale (PR)
- Impact Area Barren (PR)
- Cabin Club Spring (PR)
- Cane Creek Corridor (PR)

Threatened, Endangered, or Special Concern Fauna (Federally Protected

Wildlife). Two species of fauna listed as endangered or threatened by the U.S. Fish and Wildlife Service (USFWS) have been recorded on Fort McClellan. They are the gray bat (*Myotis grisescens*) that uses the Cane Creek Corridor as foraging habitat, and the blue shiner (*Cyprinella caerulea*) located within the Choccolocco Creek watershed. An additional endangered species, the red-cockaded woodpecker historically occurred on the Installation.

- **Gray Bat.** The gray bat is the largest member of the genus *Myotis* in the eastern United States. It was officially listed as endangered by USFWS in 1976. A recovery plan with the objective of delisting was prepared and approved in July, 1982 (INRMP, 1998). The gray bat was recorded on Fort McClellan in 1995 as a result of mist net surveys. Gray bats comprised 36 percent of the total sample on Main Post and 41 percent of the total sample on Pelham Range (Garland, 1996).

The gray bat is almost entirely restricted to cave habitats and typically roosts in caves year-round. Although, Garland (1996) failed to identify gray bat roosts, potential roosts under the Route 431/21 bridges over Cane and Cave Creeks are reported by 3D/International, Inc. (3DII, 1997), and were located and identified by a FTMC Natural Resources Biologist during the initial IT ecological site reconnaissance. Larger streams on Main Post and Pelham Range provide excellent foraging habitat for this species.

- **Blue Shiner.** The blue shiner is a medium-sized minnow that can attain four inches in length. Populations of blue shiners have been fragmented and isolated range wide and are, therefore, vulnerable to adverse impacts (INRMP, 1998). Within Alabama, the blue shiner is restricted to Weogugka and Choccolocco creeks and the lower reaches of the Little River (Garland, 1996).

Within Choccolocco Creek, the blue shiner is limited to about 15 miles of main channel and lower reaches of Shoal Creek. Approximately two miles of Choccolocco Creek flows in a southerly direction across the Army-leased Choccolocco Corridor. The entire length of the stream within the Corridor is optimal habitat for the blue shiner (Garland, 1996).

- **Red-cockaded Woodpecker (Historical Population).** The red-cockaded woodpecker is a ladder-backed woodpecker endemic to longleaf pine forests of the southeastern United States. It is approximately 7.25 inches in length. The species is group forming, cavity-nesting, and nonmigratory. The woodpeckers roost and nest in cavities excavated in mature pines (INRMP, 1998).

Forestry practices have resulted in population declines and a contraction in the woodpecker's range across the southern United States. The last remaining active red-cockaded woodpecker cluster on FTMC was recorded in 1968 (INRMP, 1998). Subsequent surveys for the woodpecker during the 1970s, 1980s, and 1990s did not record any birds or evidence of suitable habitat (Garland, 1996).

Although the red-cockaded woodpecker appears to no longer inhabit the Installation, active clusters are known to inhabit the Talladega National Forest to the east. Four active clusters are located five to seven miles from Main Post (Garland, 1996).

Other special status wildlife species are listed in Table B-2.

B.4.0 References

3D/International, Inc. (3DII), 1997, *Draft Biological Assessment: Disposal and Reuse of Fort McClellan, Alabama*, Harland Bartholomew and Associates, Inc., September.

Alabama Department of Conservation and Natural Resources (ADCNR), 1994, *Natural Heritage Inventory of Fort McClellan, Main Post: Federal Endangered, Threatened, Candidate Species and State-Listed Species*, Alabama Natural Heritage Program, September.

EDAW, Inc., (EDAW), 1997, *Fort McClellan Comprehensive Reuse Plan - Implementation Strategy*, Fort McClellan Reuse and Redevelopment Authority of Alabama, November.

Environmental Science and Engineering (ESE), 1998, *Final Environmental Baseline Survey (EBS)*, Prepared for the U.S. Army Environment Center, Installation Restoration Division, Aberdeen Proving Ground, Maryland.

Fort McClellan (FTMC), 1998, *Integrated Natural Resources Management Plan (INRMP) 1998-2002*, Draft, Fort McClellan, Alabama, Directorate of Environment, January 9.

Garland, B. W., 1996, *Endangered Species Management Plan for Fort McClellan, Alabama*, Directorate of Environment, Fort McClellan, January.

1 Garland, B. W., 1997, "Montane Longleaf Pine Forests on Fort McClellan, Alabama" in
2 ***Longleaf Pine: A Regional Perspective of Challenges and Opportunities***, Editor, John S. Kush,
3 Proceedings of the First Longleaf Alliance Conference, Auburn University.
4
5 Maceina, E. C., R. S. Meldahl, and J. S. Kush, 1997, ***Longleaf Pine Restoration Plan for Ft.***
6 ***McClellan, Alabama (Final Report)***, Auburn University, August.
7
8 Resource Management Service, Inc., 1994, ***Forest Type Map, Stand Descriptions***, Fort
9 McClellan, Alabama.
10
11 Roy F. Weston, Inc., 1990, ***Enhanced Environmental Assessment, Fort McClellan, Alabama,***
12 (Volume 1), West Chester, Pennsylvania, December.
13
14 Science Applications International Corporation (SAIC), 1993, ***Site Investigation Report, Fort***
15 ***McClellan, Alabama***, McLean, Virginia, two volumes.
16
17 Scientific Applications International Corporation (SAIC), 1995, ***Preliminary Draft; Feasibility***
18 ***Study Report Fort McClellan, Alabama, Remedial Investigation/Feasibility Study***, October.
19
20 Tucker, R. E., J. B., McHugh, R. T. Hopkins, and B. W. Garland, 1995, ***Rock and Soil***
21 ***Geochemical and Natural Water Hydrogeochemical Surveys and Environmental Implications,***
22 Fort McClellan, Alabama, U.S. Geological Survey Open File Report 95-837.
23
24 U.S. Army Environmental Hygiene Agency (USAEHA), 1976, ***Water Quality Biological Study***
25 ***No. 24-0066-77, Biological Evaluation of Surface Waters***, Fort McClellan, Alabama.
26
27 Whetstone, R. D., J. M. Ballard, L. M. Hodge, and D. D. Spaulding, 1996, ***Vascular Plants of***
28 ***Fort McClellan, Calhoun County, Alabama***, Whetstone Consulting Inc., Anniston, Alabama.
29 June.

Attachments to Appendix B

Attachment B-1

Photographic Documentation of Site Reconnaissance (2-6 March 1998)

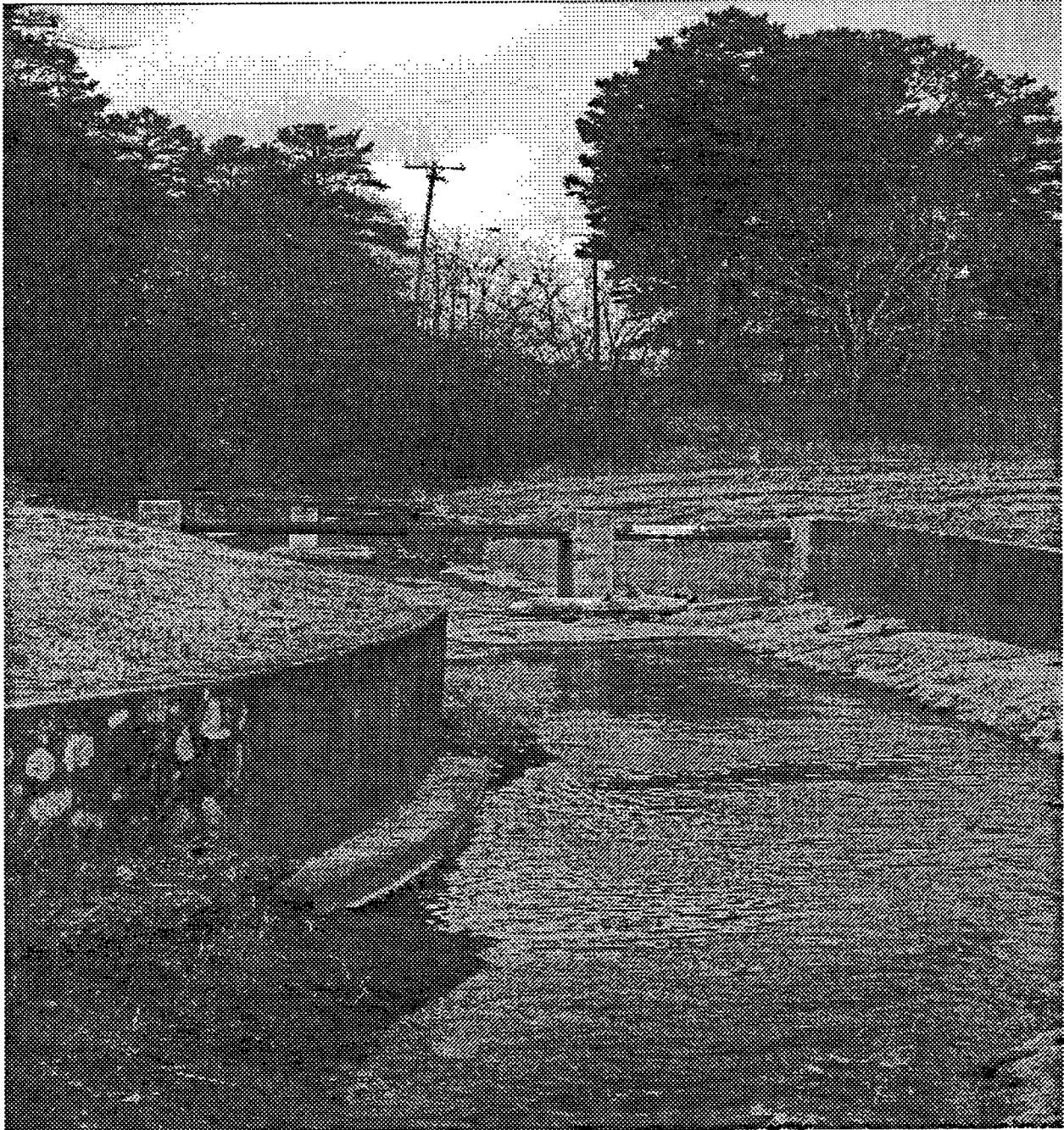


Photo A1 [3/3/98 - 9:34]

General Service Administration (GSA) Area and surrounding warehouses [CERFA Parcel Map: 15,34].
NW of Site 129(7) and E of Site 60(7): photo faces NW (in direction of McClellan Blvd [Hwy 21]).

The view of Cane creek shows it to be highly channelized and augmented by walls and concrete. The terrestrial habitat surrounding this reach of the creek is moderately to highly developed (to the E and SE of photo location) open lawn areas, fences, and buildings. Stands of trees exist among developed areas, and along portions of the creek.

Foreground (left) of photo shows some soil erosion and vegetation. Location of Photo A2 is on left bank of creek directly in center of this photo.

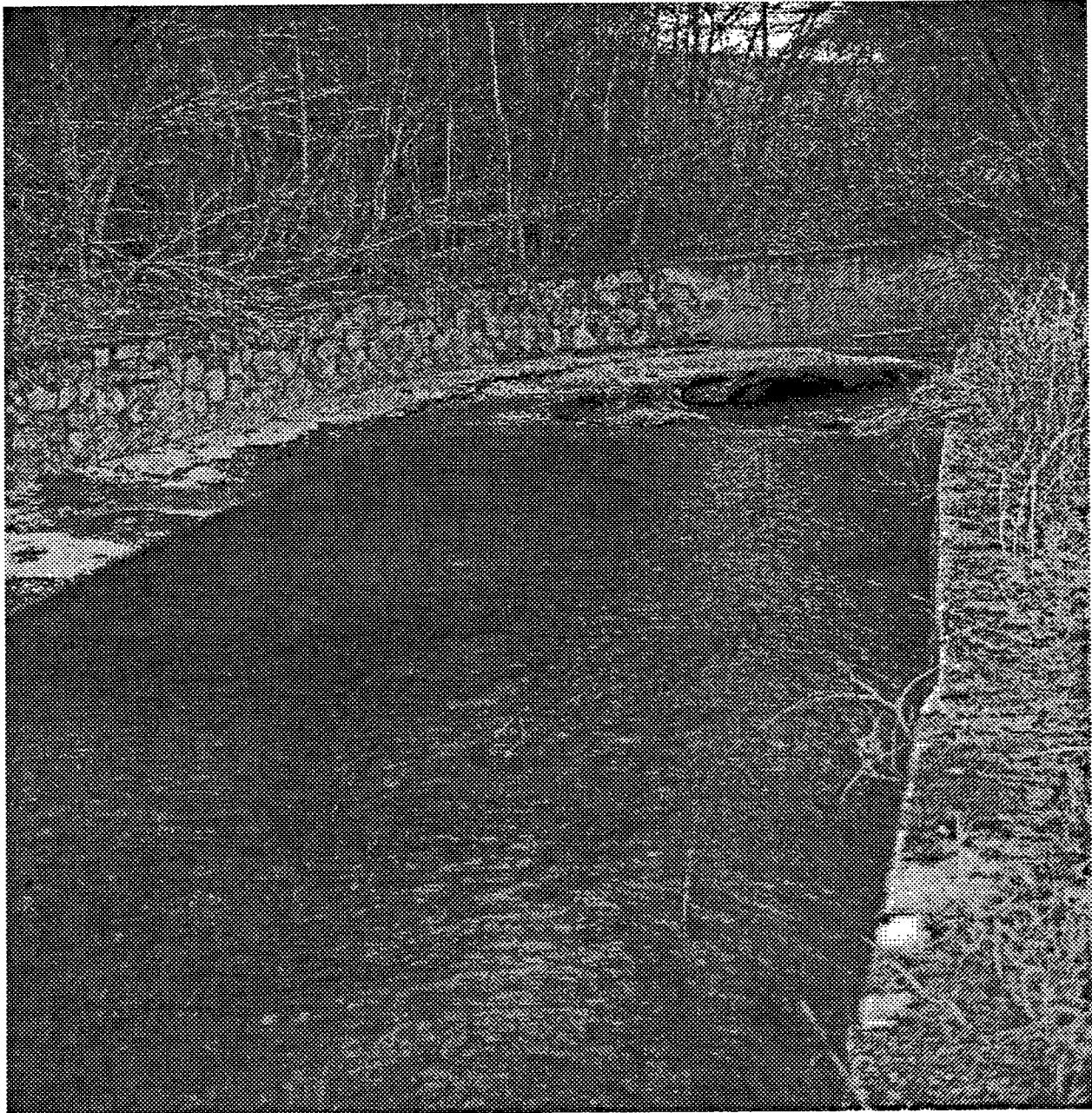


Photo A2 [3/3/98 - 9:40]

General Service Administration (GSA) Area and surrounding warehouses [CERFA Parcel Map: 15,34]. NW of Site 129(7) and E of Site 60(7): photo faces NW (in direction of McClellan Blvd [Hwy 21]); approximately 50 yards downstream of Photo A1.

The view of Cane Creek shows it to be highly channelized and augmented by walls and concrete. The aquatic habitat is not natural. Substrate within this reach of the creek is characterized by patchy sediments consisting of gravel, sand, and some fines. A major fraction of the substrate is bedrock and some concrete. Flow is fairly rapid (i.e., not conducive to much deposition).

This reach of Cane Creek contains a large patch of aquatic vegetation growing within the central portion of the creek, adjacent to concrete substrate. Several small (~1 foot high) weirs or cascades have been graded into the creek bed at irregular intervals.

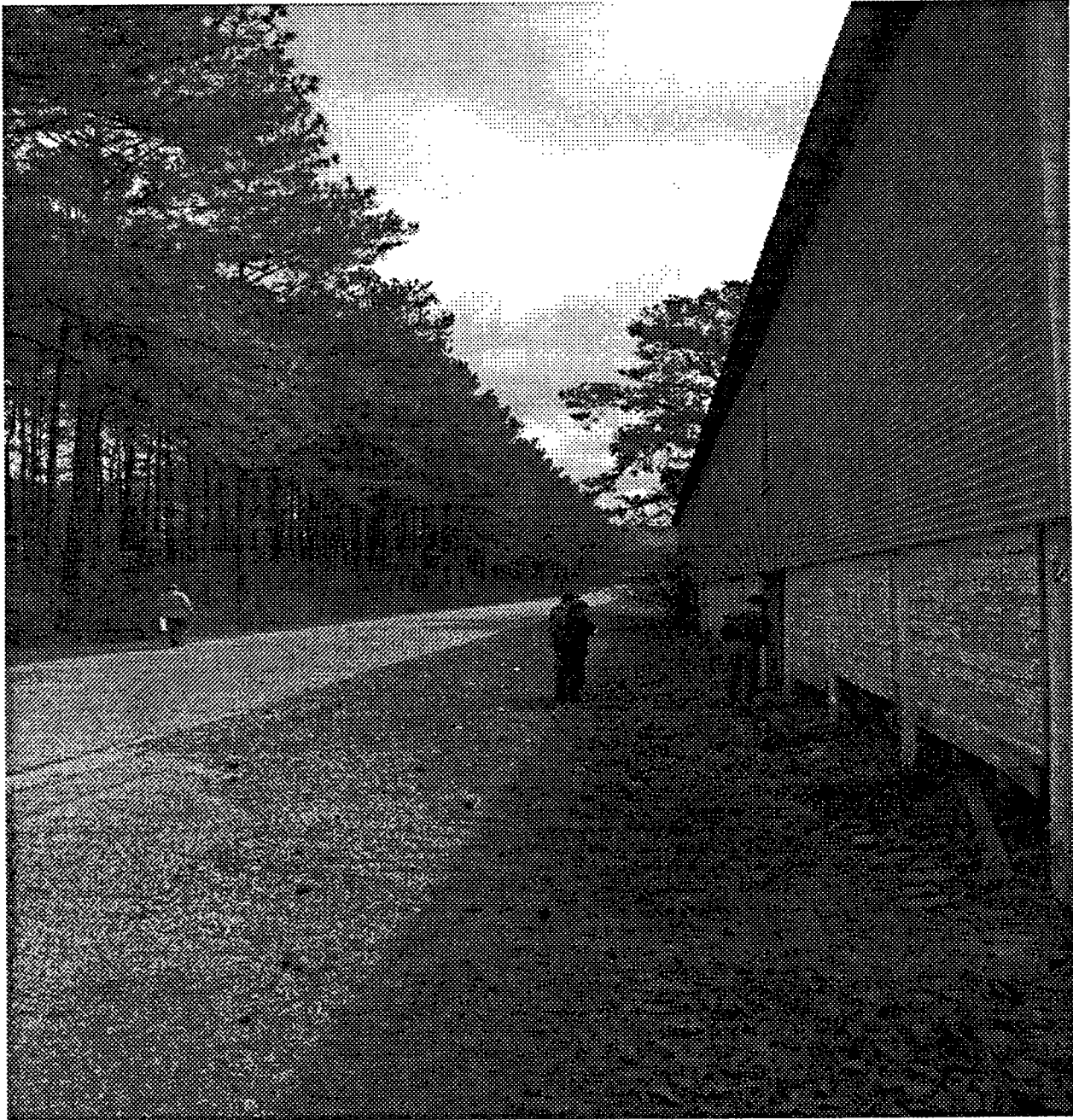


Photo A3 [3/3/98 - 9:55]

General Service Administration (GSA) Area and surrounding warehouses [CERFA Parcel Map: 16,34]. Site 151(7), on road between old building (#257) and Cane Creek: photo faces SW direction with Building 257 on the right and road parallel to Cane Creek on left.

The site (building 257) is approximately 40-50 yards SW of Cane Creek. Drainage ditches run adjacent to the building, parallel to the road and creek. Drainage pipes run under the road and discharge to a 20-30 yard wide strip of moderately vegetated land immediately adjacent to Cane Creek. Drainage pathways to the creek are not obvious. Indications of solids deposition and stormwater evaporation are evident immediately below some of the discharge pipes.

This reach of Cane Creek is channelized and augmented by stone/concrete walls. Substrate is partially covered by concrete; natural substrate is gravel sand with pockets of fine sediments.

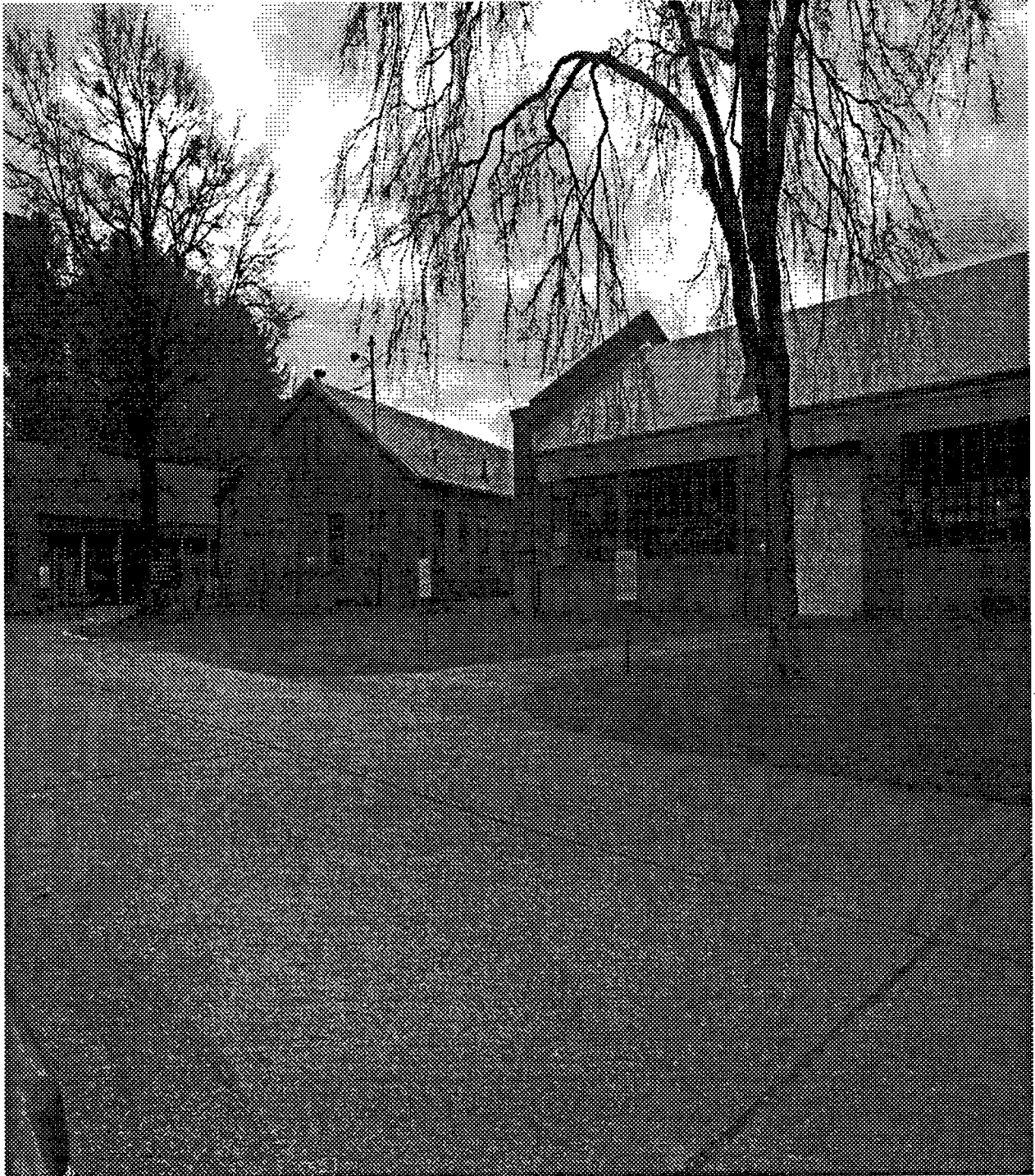


Photo A4 [3/3/98 - 10:12]

General Service Administration (GSA) Area and surrounding warehouses [CERFA Parcel Map: 17,33].
In the parking-lot N of Site 67(7): photo faces S (looking onto motor pool building area).

This area comprises the heart of the GSA area. It is a building within a cluster of buildings and pavement. Very small areas of maintained lawn and single trees are interspersed within the complex. This area and associated sites represent very poor habitat for terrestrial or aquatic receptors. Exceptions might be a limited population of terrestrial invertebrates, a limited population of small mammals (e.g., mice and rats) and small omnivorous birds (e.g., robins).

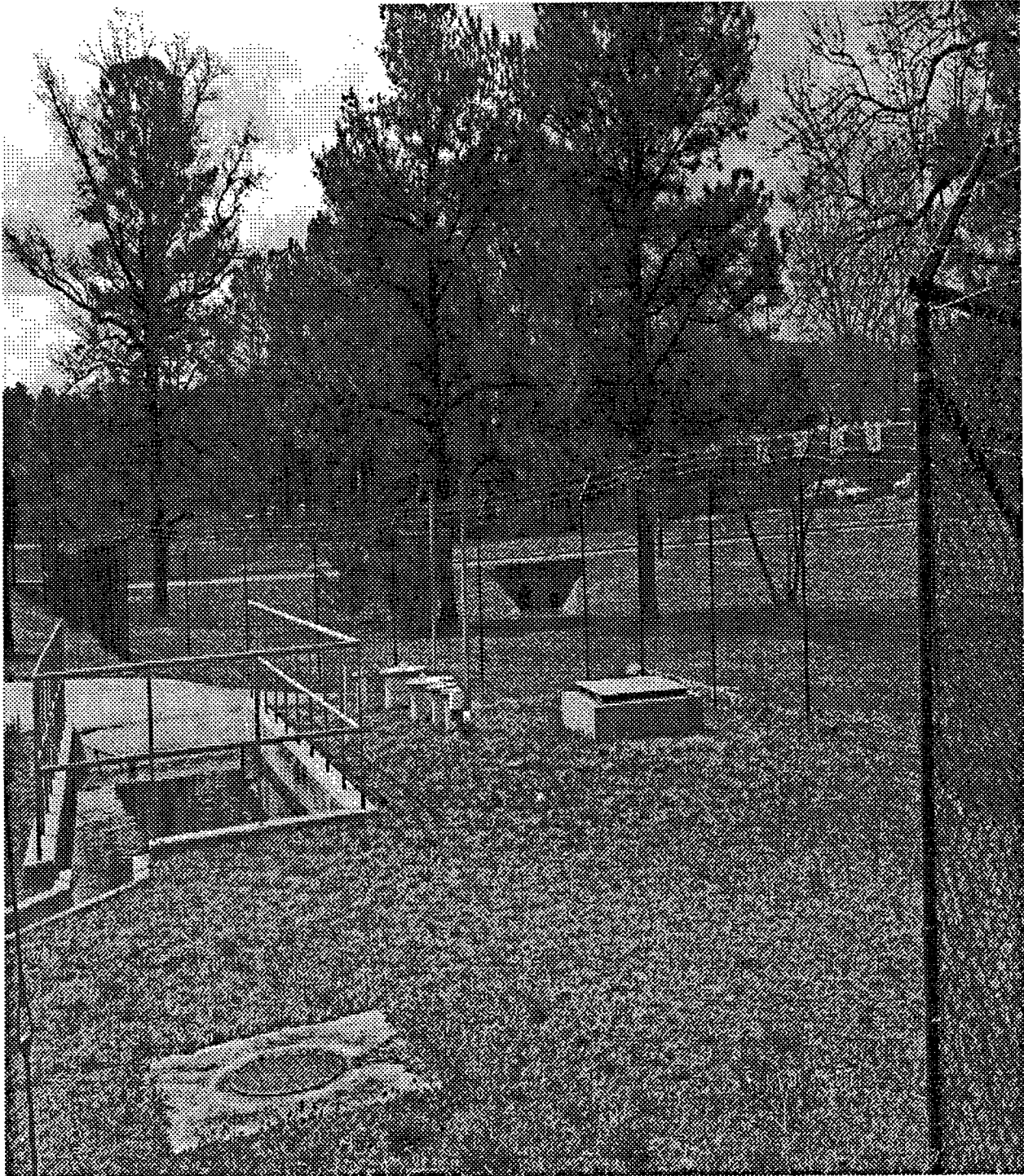


Photo A5 [3/3/98 - 10:23]

General Service Administration (GSA) Area and surrounding warehouses [CERFA Parcel Map: 17,33].

In the GSA complex near Sites 69(7) (in photo; left), 91(7) (just out of photo view; left), and 2(7) (opposite photo view; behind viewer); photo faces SW from GSA/Motor Pool lot.

The view looks directly at stormwater pipes under road. They divert storm water to South Branch Creek. Small areas of maintained lawn and single trees are interspersed within the complex. This area and associated sites represent very poor habitat for terrestrial or aquatic receptors. Exceptions might be a limited population of terrestrial invertebrates, a limited population of small mammals (e.g., mice and rats) and small omnivorous birds (e.g., robins).

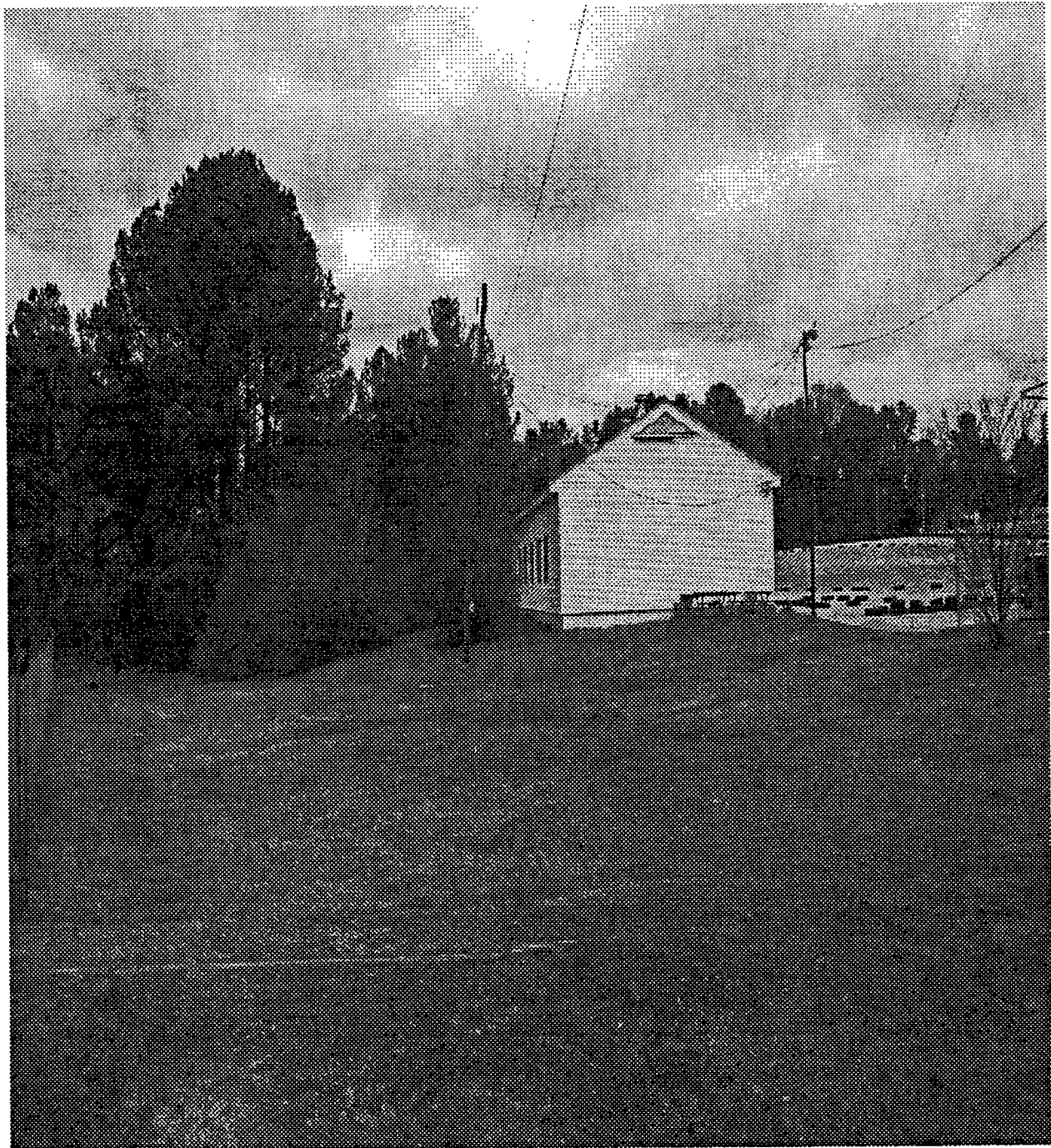


Photo A6 [3/3/98 - 10:43]

Former Motor Pool 2000 and Former gas station [CERFA Parcel Map: 18,31-32]

General site 144(7) was located on and behind the area currently occupied by a go-cart track and associated building (in photo); photo faces NW direction.

The Former Motor Pool 2000 site is adjacent to an area of heavy vegetation and stands of pine trees. A drainage ditch runs along the WSW edge of the go-cart site and discharges to South Branch Creek. A second drainage path (see Photo A7) runs from the SSE corner of the paved area in a WSW direction and apparently discharges to South Branch Creek. The second site (137(7)) is associated with a former gasoline station. Its suspected location (not photographed) is currently covered by pavement, and is adjacent to a major street and heavy commercial development.



Photo A7 [3/3/98 - 10:43]

Former Motor Pool 2000 and Former gas station [CERFA Parcel Map: 18,31-32]

General site 144(7) was located on and west of the area currently occupied by a go-cart track and associated building, photo faces WSW direction, looking down a drainage ditch draining storm water runoff into South Branch.

Area immediately adjacent west of Site 144(7) is occupied by a training area with obstacle-course type equipment surrounded by heavy vegetation and stands of trees. Area surrounding the tree stands is fairly heavily developed (e.g., streets, buildings, paved lots, etc.).

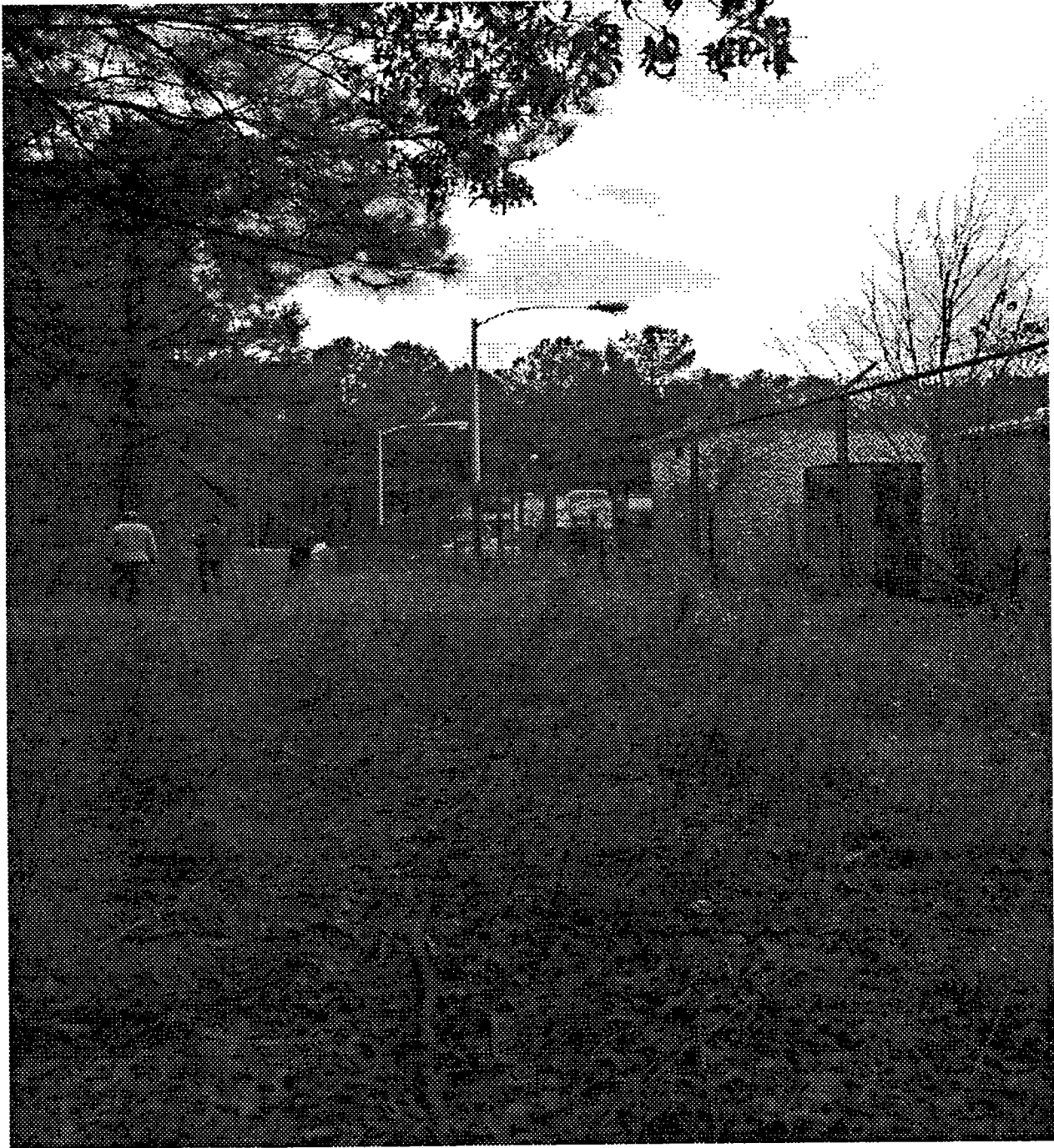


Photo A8 [3/3/98 - 10:55]

Former DPDO Area Building 1800 and current Autocraft Area

[CERFA Parcel Map: 18,28-29]

Area contains sites 100(7), 20(7), and 47(7), and is nestled between the fork of South Branch Creek and an unnamed tributary to same; photo faces SSW direction, along the SE fenceline toward road separating the Autocraft Area from the Sandel Flame Range (See Photo A16).

The view shows the SE fenceline separating the fenced area (containing buildings, oil/water separator, etc.) from a lightly forested area (deciduous trees with very little under brush (see Photo A9). Approximately 100 yards to the left of view is South Branch Creek. White building in view is near site 47(7).



Photo A9 [3/3/98 - 11:00]

Former DPDO Area Building 1800 and current Autocraft Area [CERFA Parcel Map: 18,28-29]

Area contains sites 100(7), 20(7), and 47(7), and is nestled between the fork of South Branch Creek and an unnamed tributary to same; photo faces WNW direction, view of the SE fenceline with a drainage ditch/pipe outfall in the shadowy background (under the base of the fallen tree).

The drainage ditch in view carries stormwater flow toward viewer and discharges water either to South Branch Creek (behind viewer) or deposits water onto shallow flat between discharge pipe(s) and creek. This view also shows the general vegetation and tree density of the immediate area adjacent to the Site.

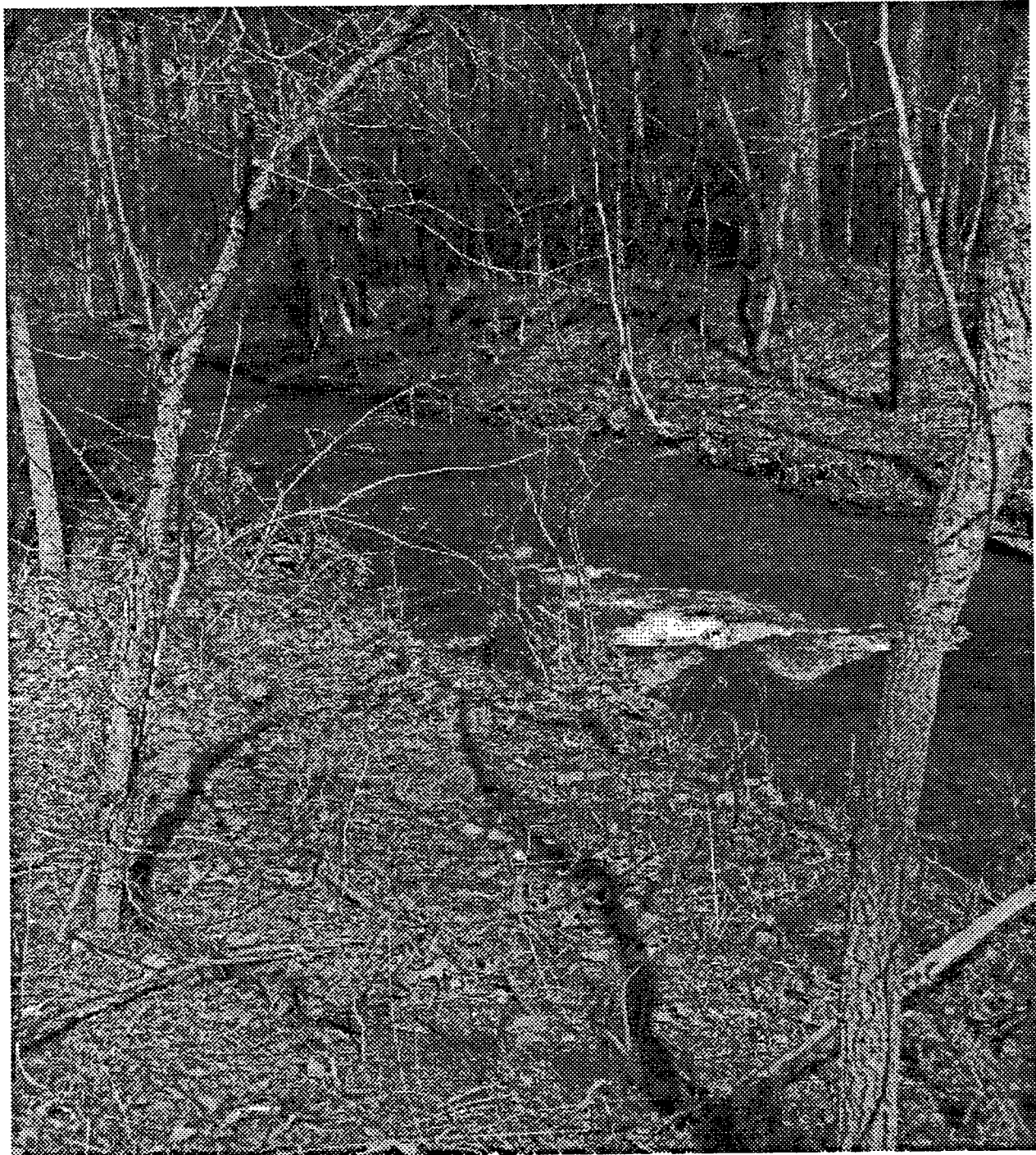


Photo A10 [3/3/98 - 11:05]

Former DPDO Area Building 1800 and current Autocraft Area [CERFA Parcel Map: 18,28-29]

Area contains sites 100(7), 20(7), and 47(7), and is nestled between the fork of South Branch Creek and an unnamed tributary to same; photo faces NW direction and includes the flood plain discharge location in the foreground adjacent to South Branch Creek.

The view is indicative of the general characteristic of creek bank in this reach (see also Photo A11). Tree are generally deciduous with very light to non-existent understory. Drainage ditch and discharge pipes are approximately 100 yards out of view to the left of viewer (see Photo A9).

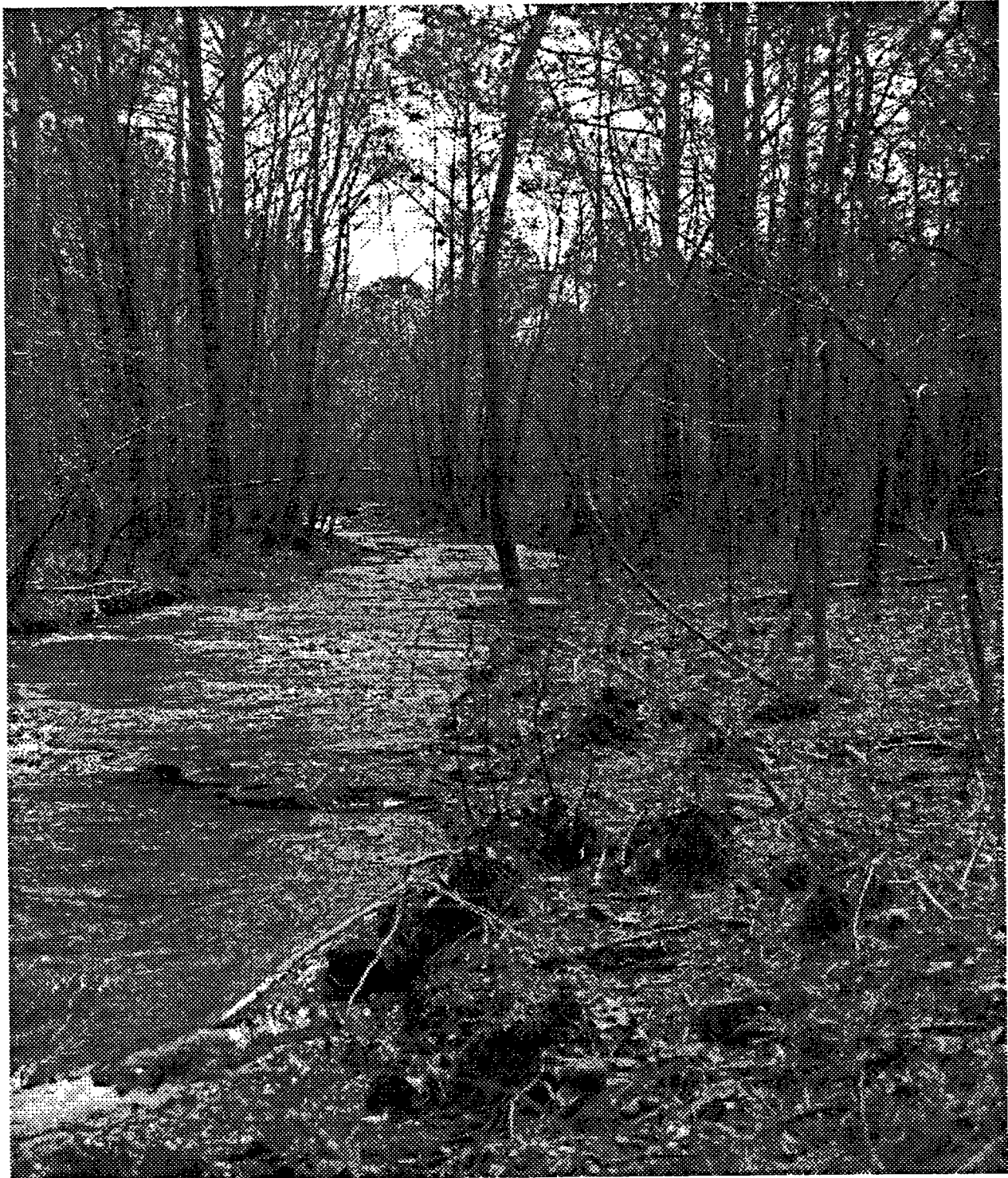


Photo A11 [3/3/98 - 11:05]

Former DPDO Area Building 1800 and current Autocraft Area [CERFA Parcel Map: 18,28-29]

Area contains sites 100(7), 20(7), and 47(7), and is nestled between the fork of South Branch Creek and an unnamed tributary to same; photo faces SE direction (upstream) at same location as Photo A10.

The view is indicative of the general characteristic of creek bank in this reach (see also Photo A11). Tree are generally deciduous with very light to non-existent understory. Drainage ditch and discharge pipes are approximately 100 yards out of view to the right of the viewer (see Photo A9).



Photo A12 [3/3/98 - 11:15]

Former DPDO Area Building 1800 and current Autocraft Area [CERFA Parcel Map: 18,28-29]
Area contains sites 100(7), 20(7), and 47(7), and is nestled between the fork of South Branch Creek and an unnamed tributary to same; photo is directly into stream.

The view is typical of the condition of this reach of South Branch creek. It is an example of a large *Elimnia* (freshwater snail genus) population in this reach of South Branch creek.



Photo A13 [3/3/98 - 11:24]

Former DPDO Area Building 1800 and current Autocraft Area [CERFA Parcel Map: 18,28-29]
Area contains sites 100(7), 20(7), and 47(7), and is nestled between the fork of South Branch Creek and an unnamed tributary to same; from north end of facility; photo faces S direction along unnamed tributary.

The view looks toward drainage pipes under the adjacent street, and draining runoff from Autocraft Area and from across the street. Habitat along the tributary is brush immediately next to the creek, and open grass farther away from the creek. Farther downstream along the tributary (behind the viewer) is its confluence with South Branch Creek.

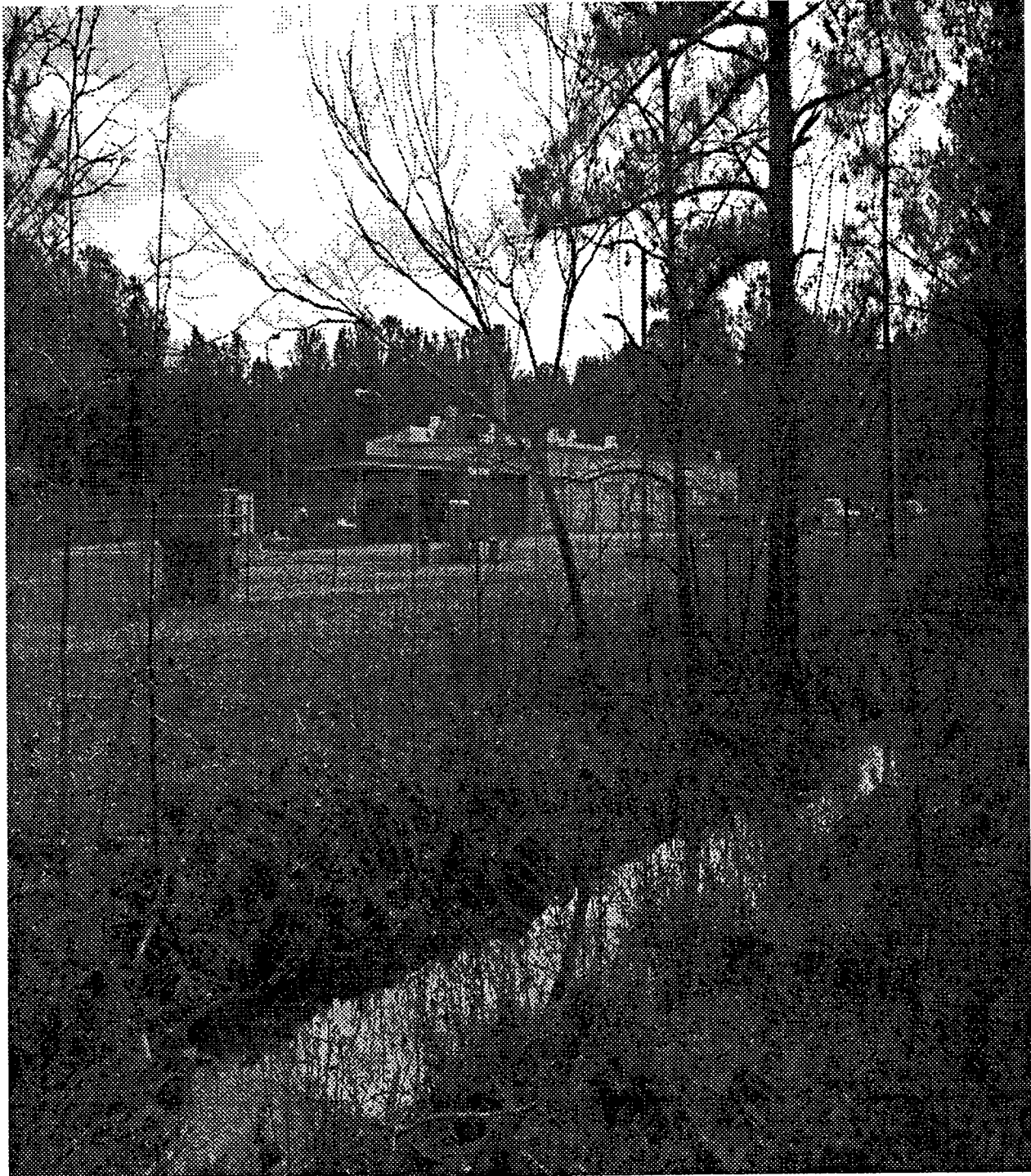


Photo A14 [3/3/98 - 11:26]

Former DPDO Area Building 1800 and current Autocraft Area [CERFA Parcel Map: 18,28-29]
Area contains sites 100(7), 20(7), and 47(7), and is nestled between the fork of South Branch Creek and an unnamed tributary to same; from farther down stream, facing S direction Autocraft Area

Similar view as in Photo A13, farther downstream. At the lower left corner of the photo (just out of view), the tributary has been channelized by metal conduit, and is covered with soil and grass for approximately 30-40 yards. The opposite end of this conduit empties into the unaltered creek (see Photo A15).

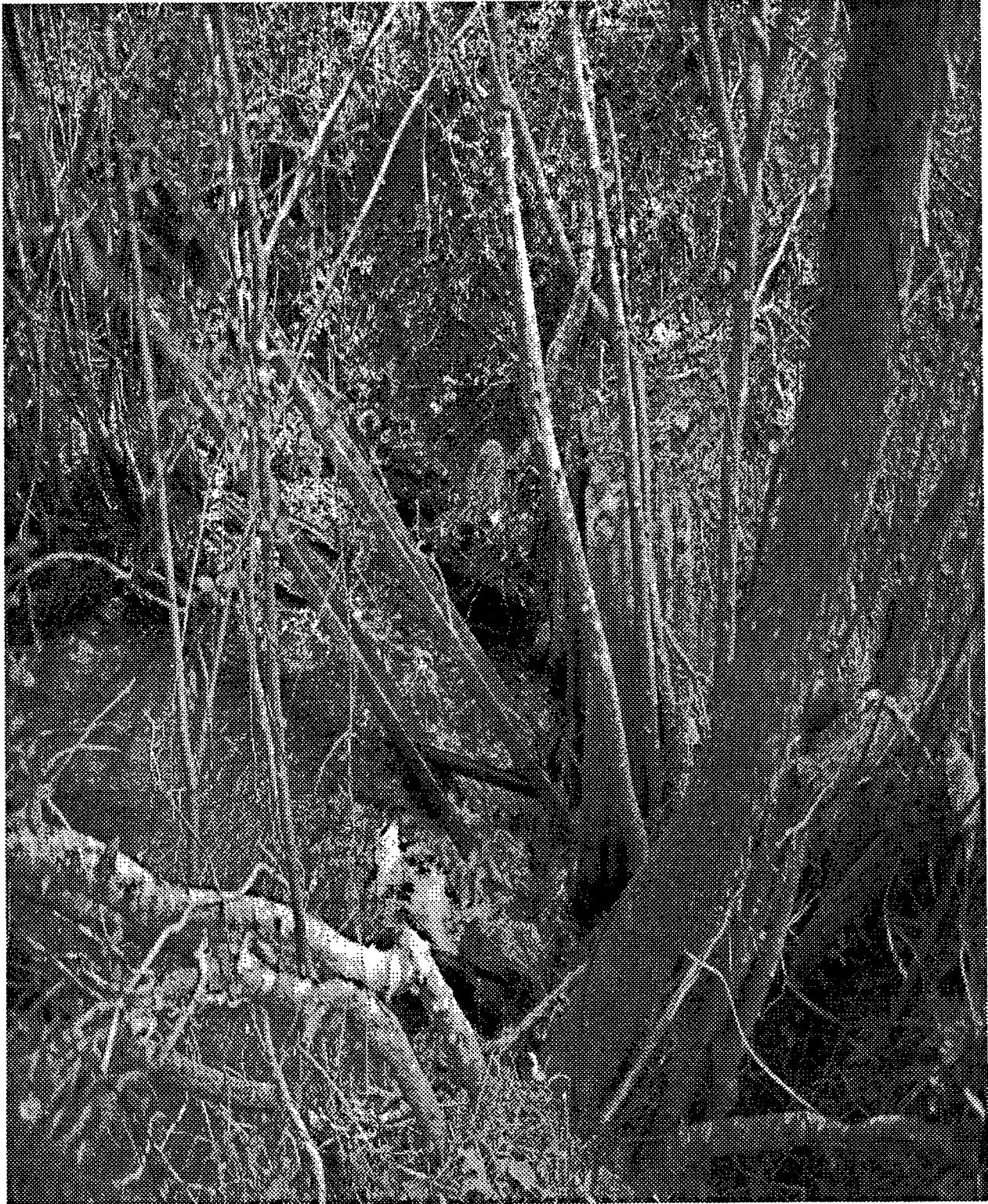


Photo A15 [3/3/98 - 11:28]

Former DPDO Area Building 1800 and current Autocraft Area [CERFA Parcel Map: 18,28-29]

Area contains sites 100(7), 20(7), and 47(7), and is nestled between the fork of South Branch Creek and an unnamed tributary to same; further downstream of unnamed tributary at its re-emergence through metal conduit.

The creek's substrate immediately downstream of the conduit outlet is fine sediment with gravel/sand interspersed.

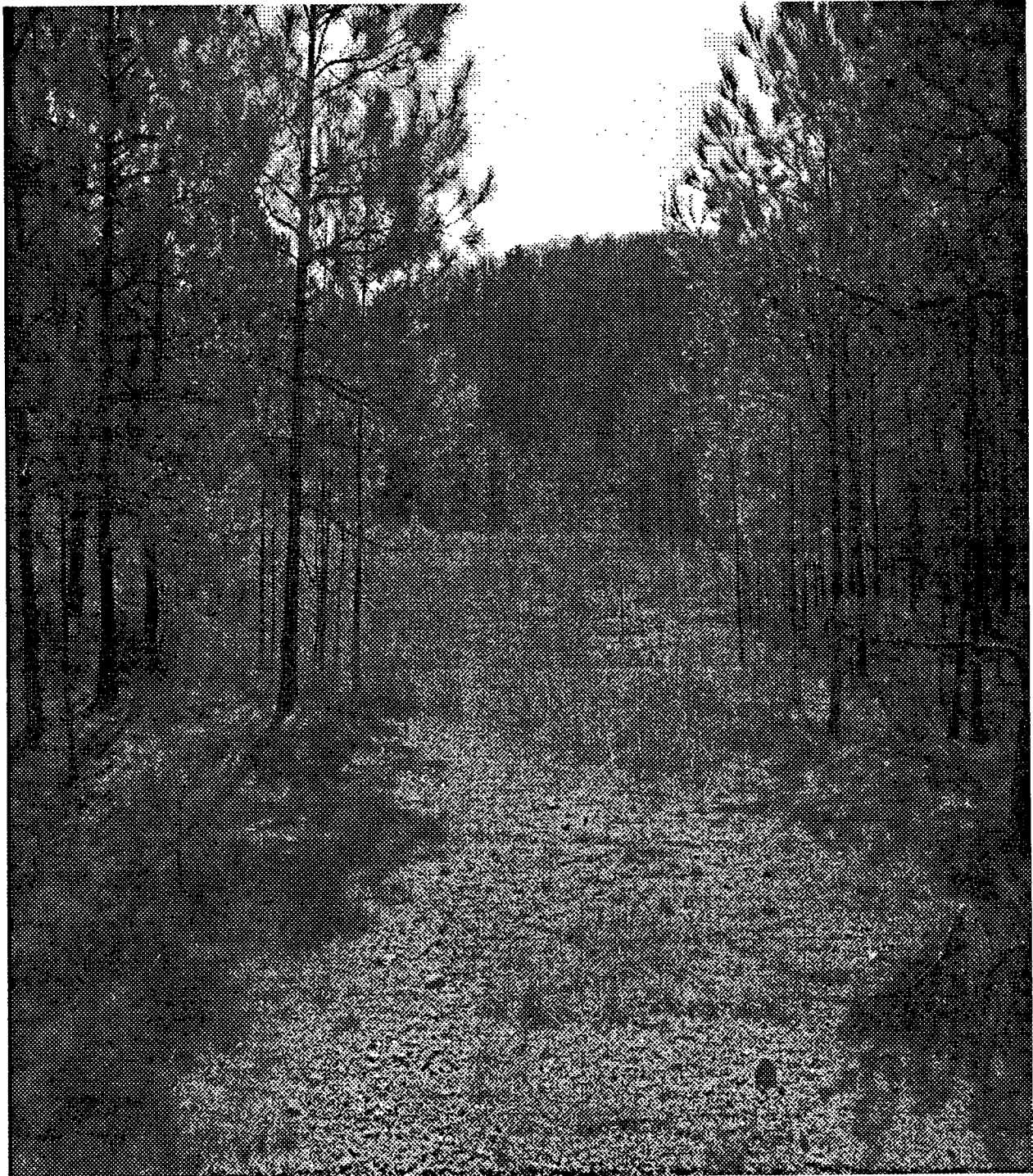


Photo A16 [3/3/98 - 11:34]

Sandel Flame Range [CERFA Parcel Map: 18,27]

Area contains Site 97(7), the flame-thrower training area, lies between hills to the S (shown in photo background) and a large forested area immediately to the N; photo faces SE direction into the open strip of land of site 97(7).

The immediate site is poorly vegetated by short, sparse clumps of dried grasses. Site is surrounded by thick forest (primarily coniferous) with moderate to thick understory. No aquatic habitat was noted at any point within, or on the periphery of, the site. At several locations, the ground showed signs of having been burned and scorched by flame.



Photo A17 [3/3/98 - 1:00]

Directorate of Engineering and Housing (DEH) compound [CERFA Parcel Map: 17,34-35]

Area consists of Site 64(7) adjacent to N bank of Cane Creek, and contains site 1(7); photo faces NE direction; view is outside southern fence (parking lot).

The view looks over a large, paved area south of the DEH area. The lot separates DEH and Cane Creek for the entire length of the compound. Between the paved lot and Cane Creek (just out of view to the right) is a narrow strip of unaltered land with sparse vegetation and coniferous trees. This reach of Cane Creek is highly channelized and lined by rock/concrete walls. This location is directly across Cane Creek from the GSA Area (see Photo A3).

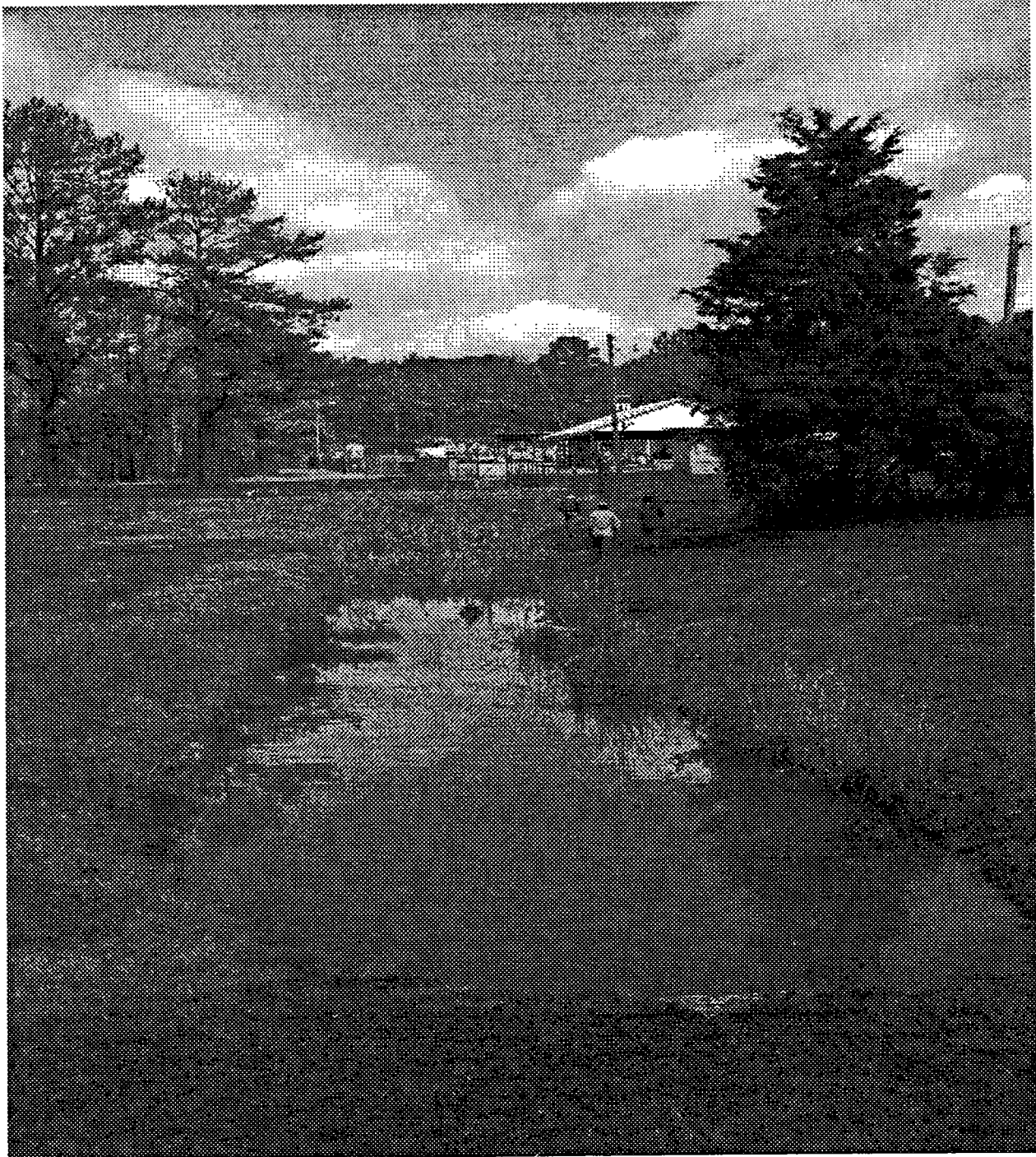


Photo A18 [3/3/98 - 1:05]

Directorate of Engineering and Housing (DEH) compound [CERFA Parcel Map: 17,34-35]

Area consists of Site 64(7) adjacent to N bank of Cane Creek, and contains site 1(7); photo faces NE direction along the W fence of DEH overlooking standing water pond.

This view is typical of the terrestrial habitat surrounding the DEH compound to the W, N, and E. The pond in view is a unique feature; it drains to the S (toward the viewer) toward Cane Creek (see Photo A19), but does not drain completely. A wetland-type area has developed at the northern end of this water pond (in background, adjacent to pedestrians in view; also see Photo A19).

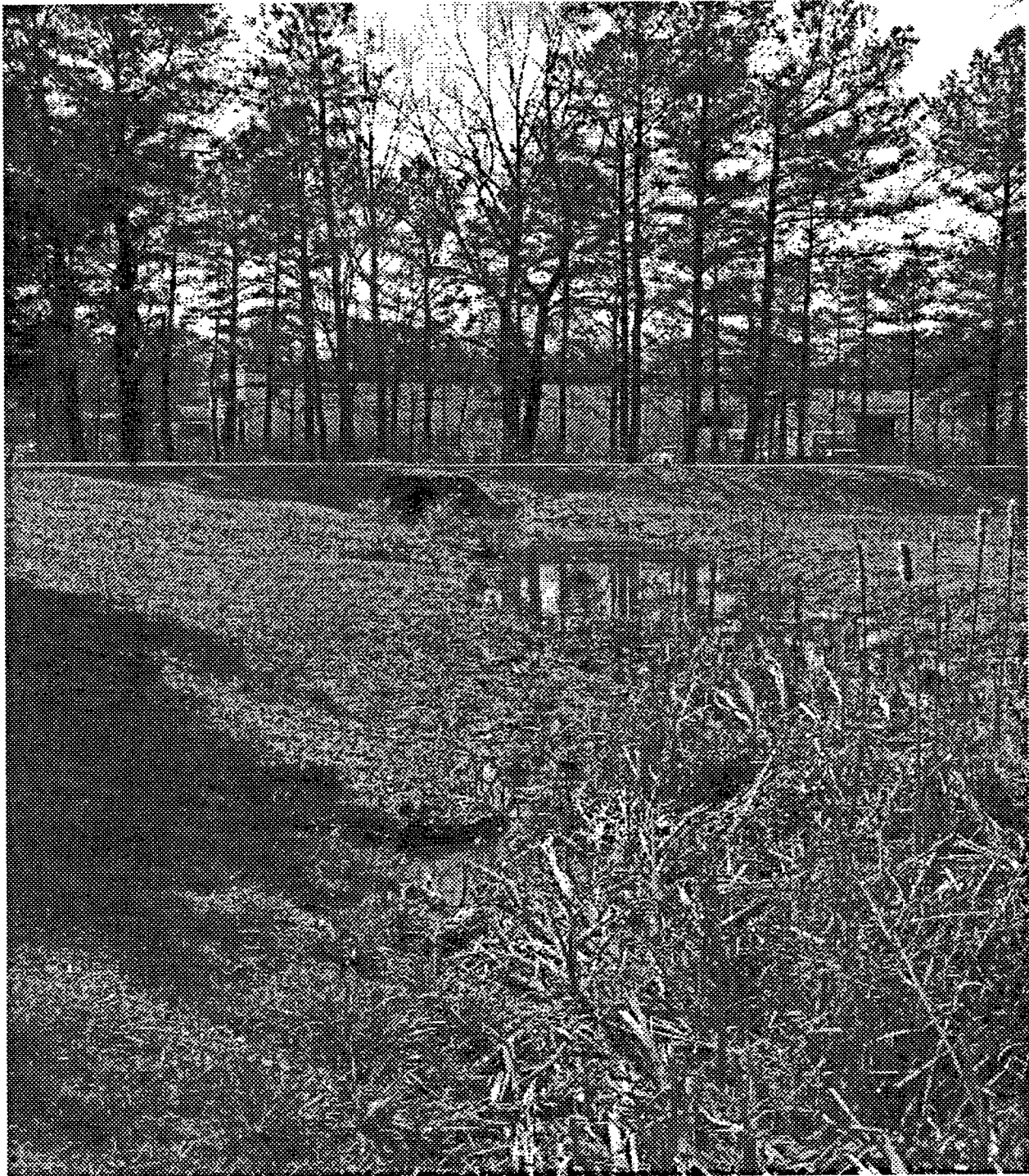


Photo A19 [3/3/98 - 1:10]

Directorate of Engineering and Housing (DEH) compound [CERFA Parcel Map: 17,34-35]

Area consists of Site 64(7) adjacent to N bank of Cane Creek, and contains site 1(7); photo faces SW direction, parallel to the W fence of the DEH compound (just out of view to the left).

The view is looking at the wetland-type area at the northern end of the standing pond (see Photo A18). The stormwater conduits in the shadowed area at the southern end of the pond lead to Cane Creek (behind bridge). White building behind trees in the background is part of the GSA area (see Photo A3).



Photo A20 [3/3/98 - 1:14]

Directorate of Engineering and Housing (DEH) compound [CERFA Parcel Map: 17,34-35]

Area consists of Site 64(7) adjacent to N bank of Cane Creek, and contains site 1(7); photo faces E, looking over storm sewer discharge emanating from the western fenceline of the DEH.

The pipe in view may be one of the discharge points for runoff from the DEH compound. Entry points to stormwater drain system, however, may only be found by reviewing utility maps. This particular discharge point empties into the wetland-type area (see Photo A19) and ultimately out to Cane Creek.

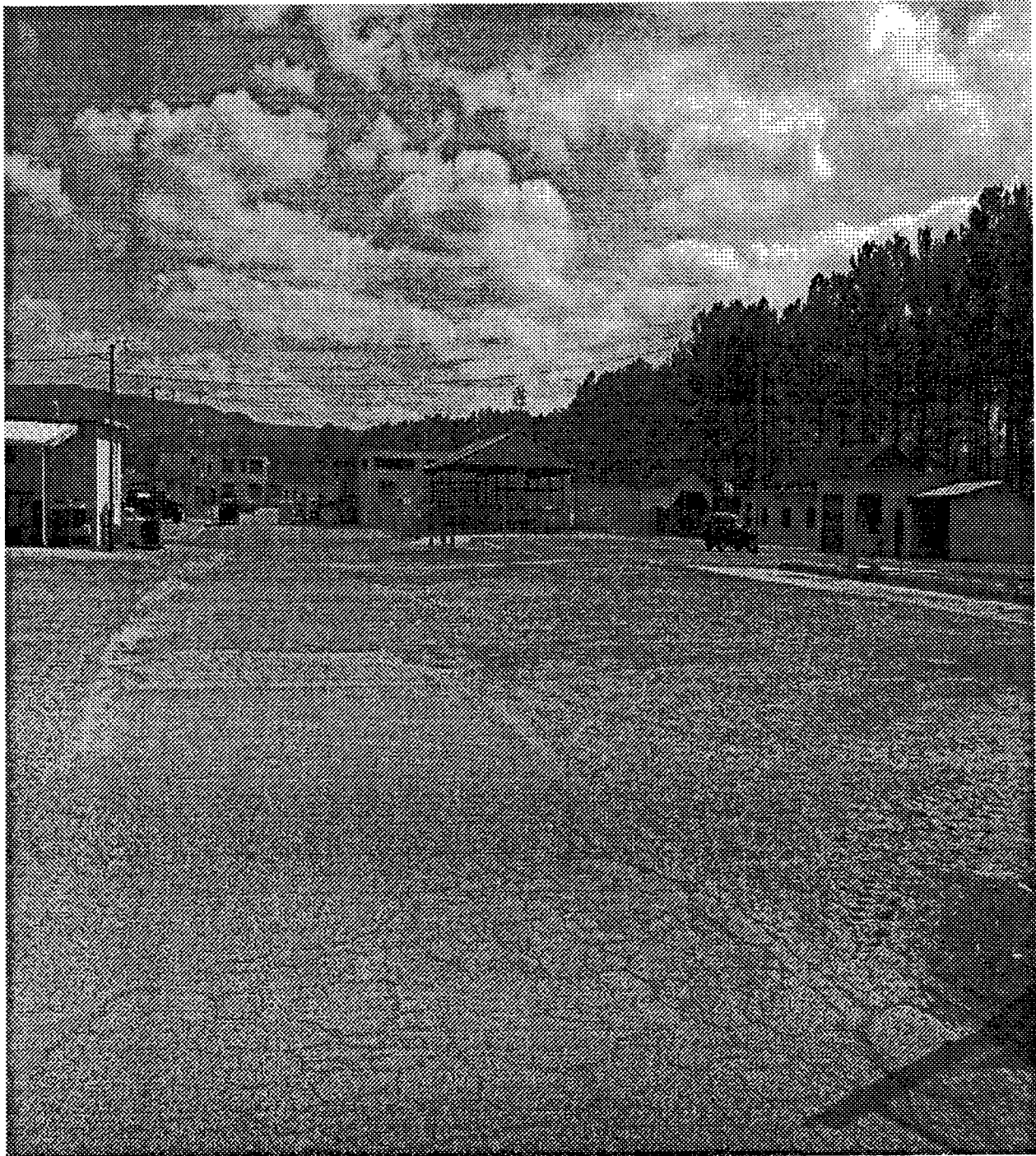


Photo A21 [3/3/98 - 1:15]

Directorate of Engineering and Housing (DEH) compound [CERFA Parcel Map: 17,34-35]

Area consists of Site 64(7) adjacent to N bank of Cane Creek, and contains site 1(7); photo faces S, looking from the western fence gate into the main DEH Area yard.

The area within the fence line is highly developed, industrial terrain. The site is almost completely devoid of any vegetation. Habitat is extremely poor; mice and rats inhabiting buildings and structures may be the only potential receptors. No maintained lawns exist, precluding terrestrial invertebrates, and very little foraging opportunity exists for small birds, as well.

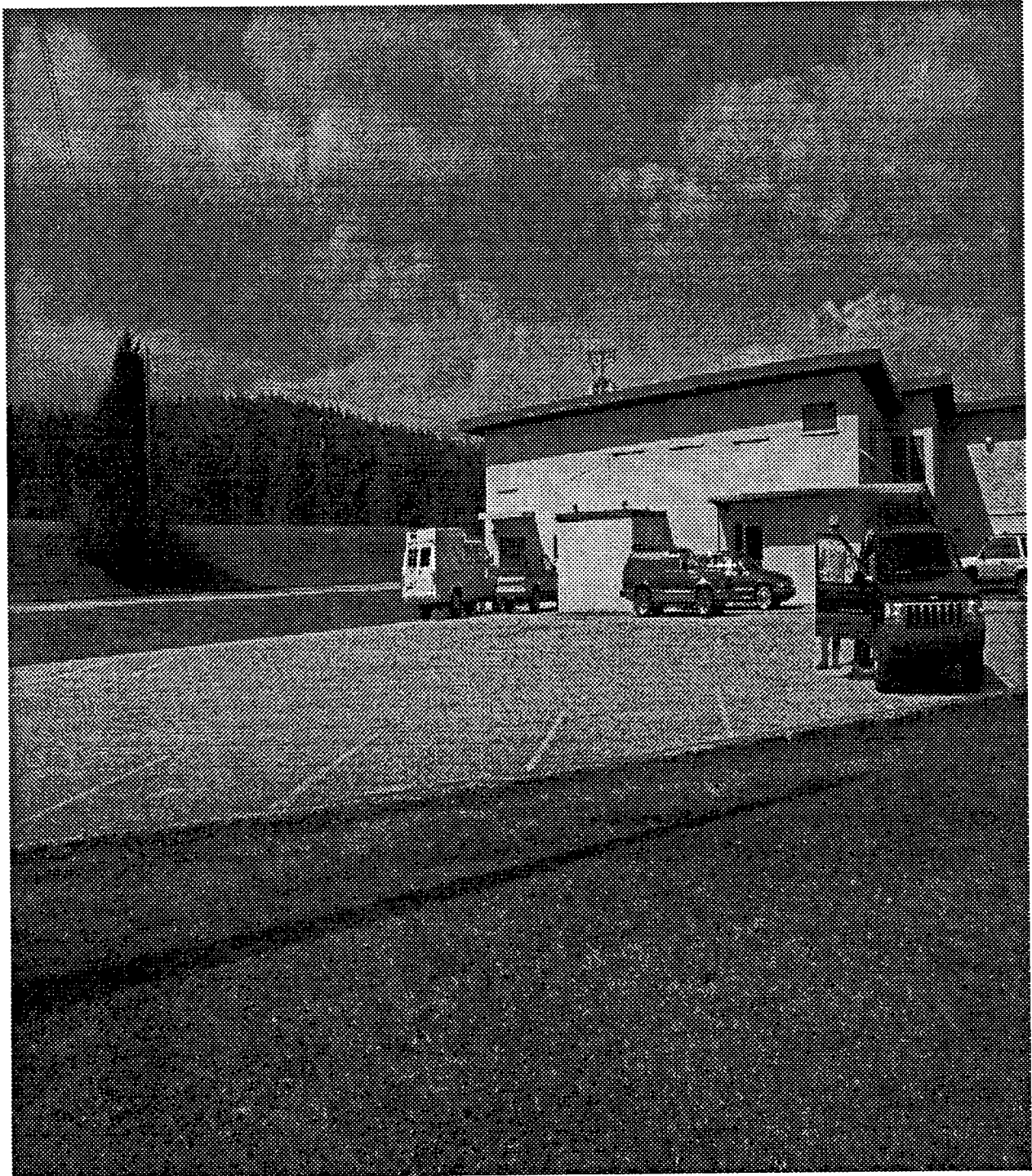


Photo A22 [3/3/98 - 1:35]

Former Training Aids Building (current Service Center Building 267) [CERFA Parcel Map: 20,33-34]
Site 166(7) is a former photography laboratory located in an open area of maintained lawns and roads; photo faces NW direction, looking at the Training Aids Building surrounded by open field and tree stands.

This area is situated in a less developed, open area of the Catonment. To the S is Cane Creek, however, the distance between Site 166(7) and the creek is several hundred yards. Roads and stormwater pipes lie between the building and the creek. The forested area is mainly to the WNW.

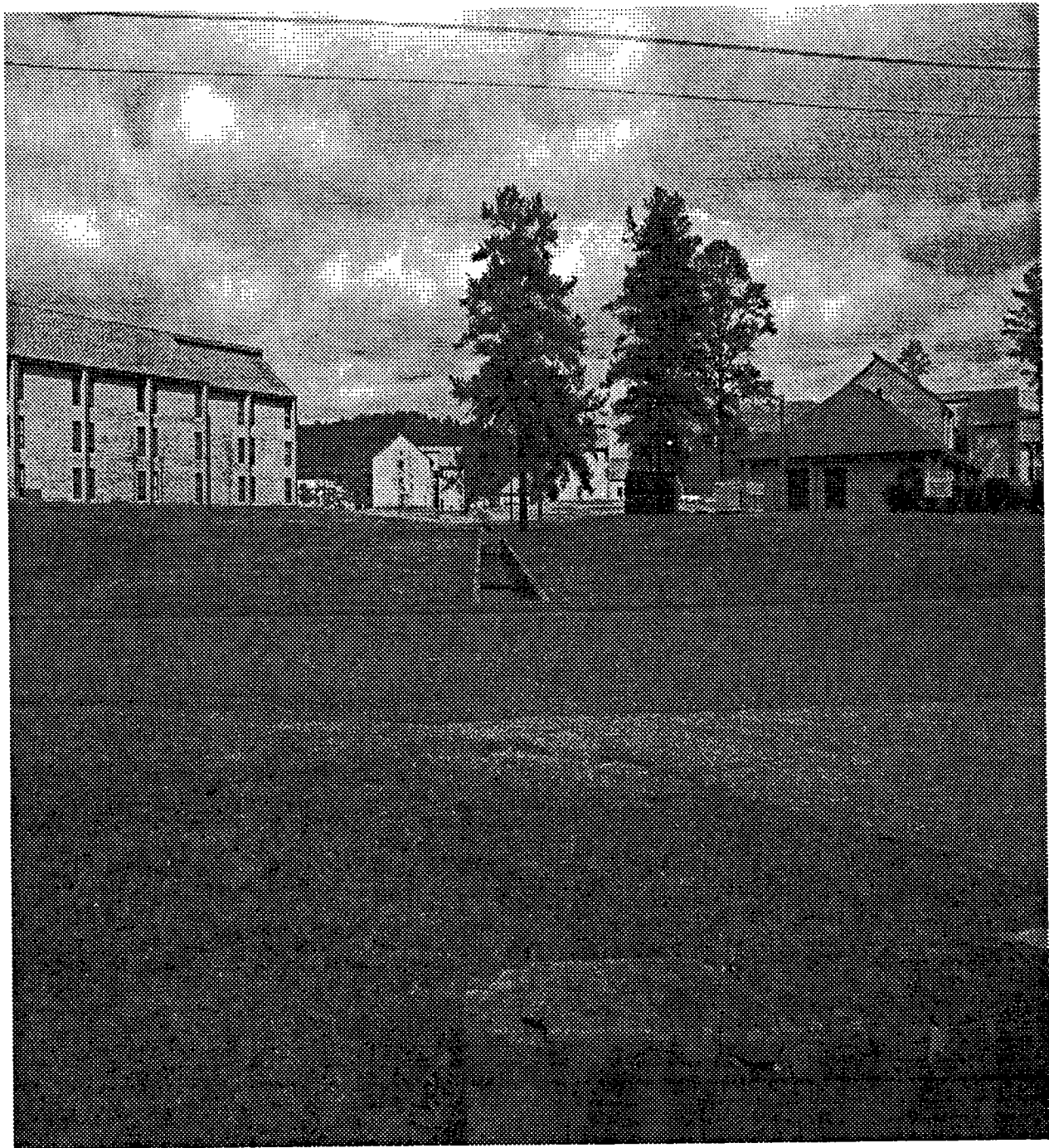


Photo A23 [3/3/98 - 1:45]

Former Hospital Area (currently an apartment and commercial office building complex) [CERFA Parcel Map: 22-23,33]

Across street to the SW of of site 95(7); photo faces NE along the visual line of the main storm channel draining the area. The channel crosses under the road via storm pipe, and continues in same direction past the viewer toward Cane Creek to the rear.

Site consists of a large, open area of maintained lawn. Single trees throughout the area were probably kept for landscaping astetics. No medical buildings remain. Drainage ditches that traverse the area are constructed concrete channels. No natural aquatic system exists on site.



Photo A24 [3/3/98 - 1:57]

Area 800 Motor Pool [CERFA Parcel Map: 24,33}

Area Site 164(7) also contains Sites 68(7), 12(7), 11(7); photo faces N direction from the southern corner of the lot. Photo looks over a small, natural creek that runs along the SE fenceline of the lot. The SW fenceline is in the background, left of center; it runs parallel to the road on the far left of view.

The immediate area is highly altered/developed with minimal grass area within the fence. Large, open paved areas with a few structures characterize this site. Habitat on site is extremely poor. However, the area is surrounded on three sides (SE, NE, and (to a lesser extent) the NW) by unaltered, natural terrain. The small creek running parallel to the SE fenceline is natural and protected by heavy deciduous forest with thick understory.

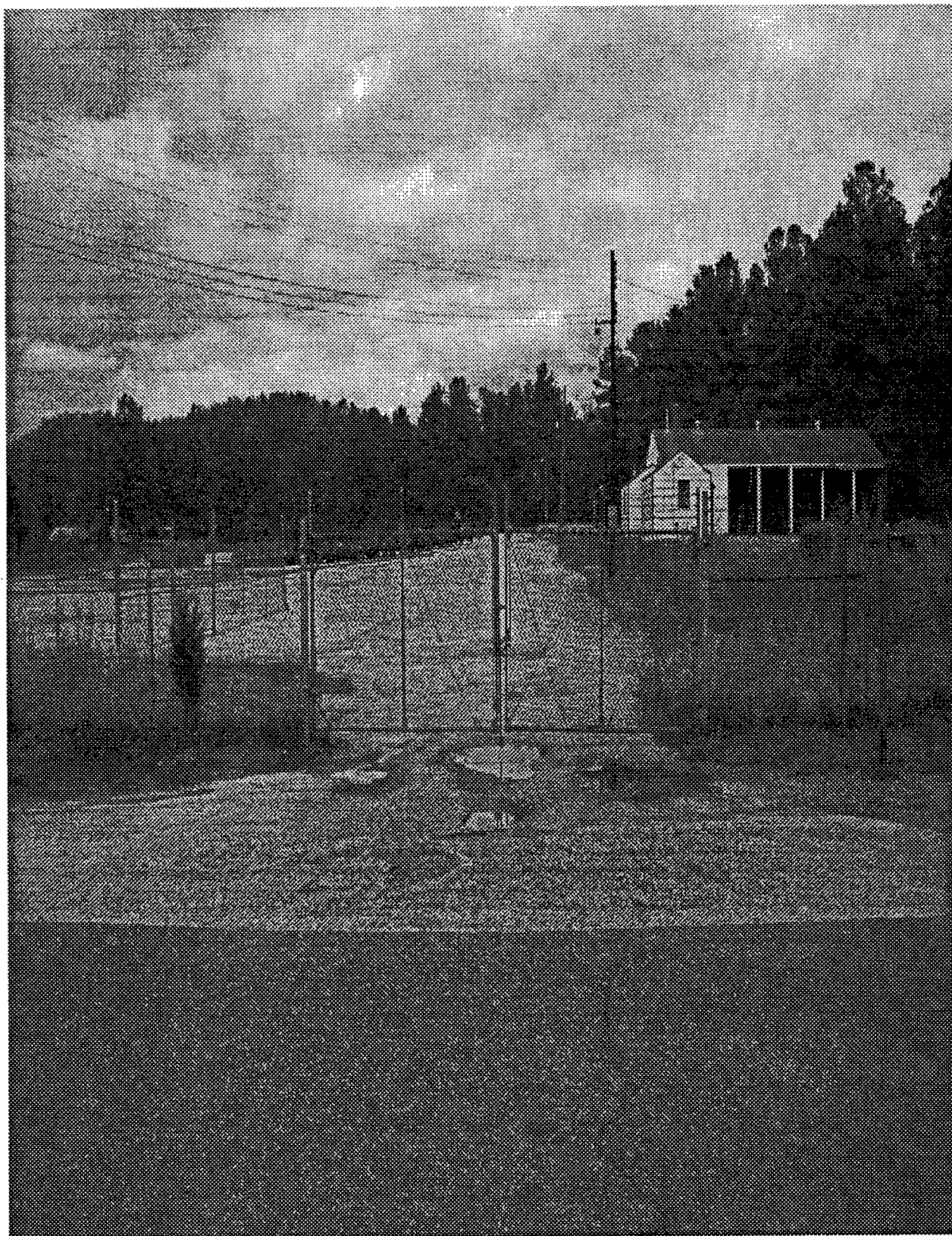


Photo A25 [3/3/98 - 2:03]

Extra exposure assumed not exposed. First exposure of next roll is the identical view (see Photo B1 for a description)